UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,449	04/15/2004	Paul Marcus Carpenter	291010-00035	8320

7590 11/27/2007

Brij K. Agarwal
Eckert Seamans Cherin & Mellott, LLC
44th Floor
600 Grant Street
Pittsburgh, PA 15219

EXAMINER	
CHANG, LI WU	

ART UNIT	PAPER NUMBER
4152	

MAIL DATE	DELIVERY MODE
11/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/825,449	CARPENTER, PAUL MARCUS	
	Examiner	Art Unit	
	LiWu Chang	4152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C: § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/12/2006; 10/28/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-31 are pending in this application.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. The term "immediately" in claims 5 and 24 is a relative term, which renders the claim indefinite. The specification does not provide a standard for ascertaining the requisite degree of the term, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claim 1, 4, 10, 11, 14 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by WAP Push Architectural Overview (WAP-250-PushArchOverview-20010703-p), and hereinafter PushArch. PushArch is cited by applicants in IDS filed on 12/12/2006.**

6. With respect to claim 1, PushArch discloses a method for initiating a Wireless Access Protocol (WAP) push session to push information from a push proxy gateway to a mobile station in a wireless communication network (PushArch: section 1, the 2nd paragraph describes a mobile device which can be a mobile station with definitions of push proxy gateway and push session in section 3.2; section 6.3, lines 1-3 describes initiation), the method comprising: transmitting an initiation request to the mobile station using a connection-oriented signaling channel between the network and the mobile station (PushArch: section 8.3, lines 3 of the 1st paragraph describes communication between the mobile station and network or PPG with a connection-oriented service, e.g., in line 1 of the 2nd paragraph), said mobile station establishing a push session in response to the initiation request towards the push proxy gateway to permit the push proxy gateway to push information to the mobile station (e.g., PushArch: section 8.3, the 2nd paragraph describes the push session with information being sent to the mobile station in section 6, line 2 of the 1st paragraph).

7. With respect to claim 11, PushArch discloses a method for initiating a Wireless Access Protocol (WAP) push session, to receive push information from a push proxy gateway at a mobile station in a wireless communication network (PushArch: section 6.3, lines 1-2 describes initiation; section 8.3, lines 2-3 of the 2nd paragraph), the method comprising: receiving an initiation request at the mobile station using a connection-oriented signalling channel between the network and the mobile station

(PushArch: section 8.3, lines 3 of the 1st paragraph describes communication between the mobile station and network or PPG with a connection-oriented service, e.g., in line 1 of the 2nd paragraph); and establishing a push session in response to the initiation request towards the push proxy gateway to permit the push proxy gateway to push information to the mobile station (e.g., PushArch: section 8.3, the 2nd paragraph describes the push session where information is sent to the mobile station as in section 6, line 2 of the 1st paragraph).

8. With respect to claim 4, PushArch discloses wherein the initiation request comprises an identification of a bearer for activating to support the establishing of the push session (PushArch: section 8.2, lines 3-4 of the 2nd paragraph).

9. With respect to claim 10, PushArch discloses receiving the initiation request from the push proxy gateway (PushArch: section 8.3, line 3 of the 1st paragraph).

10. With respect to claim 14, PushArch discloses wherein the initiation request comprises an identification of a bearer for activating to support the establishing of the push session (PushArch: section 8.3, lines 2-4 of the 2nd paragraph).

11. With respect to claim 19, PushArch discloses providing the initiation request to a Session Initiation Application of the mobile station, the application adapted in

accordance with a WAP protocol for initiating a push session (PushArch: section 8.3, lines 3-4 of the 1st paragraph and line 1 of the 2nd paragraph).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. **Claims 6-8, 15-17, 20, 23, 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over PushArch, in view of WAP Over GSM USSD (WAP-204-WAPOverGSMUSSD-20010730-a), and hereinafter WapG. WapG is cited by applicants in IDS on 10/28/2004.**

14. With respect to claim 20, PushArch discloses in a push proxy gateway adapted to push information to a mobile station in a wireless communication network, a method for initiating a Wireless Access Protocol (WAP) push session between the push proxy gateway and the mobile station (PushArch: section 1, the 2nd paragraph describes a mobile device which can be a mobile station with definitions of push proxy gateway and push session in section 3.2; section 6.3, lines 1-3 describes initiation), comprising transmitting an initiation request using a connection-oriented signaling channel between the network and the mobile station (e.g., PushArch: section 8.3, lines 3 of the 1st

paragraph describes communication between the mobile station and the network with a connection-oriented service, e.g., in line 1 of the 2nd paragraph), said mobile station establishing a push session in response to the initiation request towards the push proxy gateway to permit the push proxy gateway to push information to the mobile station (e.g., PushArch: section 8.3, the 2nd paragraph describes the push session where information is sent to the mobile station as in section 6, line 2 of the 1st paragraph).

PushArch does not disclose a network node of the wireless communication network for delivery to the mobile station.
WapG discloses a network node of the wireless communication network for delivery to the mobile station (WapG: section 7.2 line 1 and Figure 1 shows the architecture and section 7.1 describes the delivery protocol).

Nonetheless, GSSD is a well-known bearer service that supports the WAP traffic. It would have been obvious for one skilled in the art at the time of invention to combine the teachings of PushArch with the teachings of WapG by explicitly including bearer services, such as USSD, in order to provide broad functionalities and services of WAP push architecture.

15. With respect to claims 6 and 15, PushArch discloses wherein the connection-oriented signaling channel comprises a channel for transmitting messages (PushArch: section 10, lines 2-4), but does not disclose Unstructured Supplementary Service Data

(USSD). WapG, however discloses Unstructured Supplementary Service Data (USSD) (e.g., WapG: section 5.1, lines 4-9 of the 3rd paragraph).

Nonetheless, GSSD is a well-known bearer service that supports the WAP traffic. It would have been obvious for one skilled in the art at the time of invention to combine the teachings of PushArch with the teachings of WapG by explicitly including bearer services, such as USSD, to provide broad functionalities and services of WAP push architecture.

16. With respect to claim 25, the claim is rejected for the same reason as claim 20 above. In addition, WapG discloses wherein the connection-oriented signalling channel comprises a channel for transmitting Unstructured Supplementary Service Data (USSD). (e.g., WapG: section 5.1, lines 4-9 of the 3rd paragraph).

17. With respect to claims 7, 16 and 26, PushArch discloses wherein the initiation request conforms to a WAP protocol for Service Initiation Requests (SIRs) (PushArch: section 6.1, including parsing of push content and addressing).

18. With respect to claims 8, 17 and 27, the claims are rejected for the same reason as claim 6 , 15 and 25 above. In addition, WapG discloses wherein the initiation request conforms to a USSD protocol for Unstructured Supplementary Service Requests (USSRs) (WapG: sections 5.3.2.1 and 5.3.2.2 describe a USSD protocol where

responses, viewed as USSR messages, are generated with respect to USSD requests.)

19. With respect to claim 23, PushArch discloses wherein the initiation request comprises an identification of a bearer for activating to support the establishing of the push session (PushArch: section 8.2, lines 3-4 of the 2nd paragraph).

20. **Claims 3, 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over PushArch, as applied to claims 1 and 11 above, in view of Push OTA Protocol (WAP-235-PushOTA-20010425-a), and hereinafter PushOTA. PushOTA is cited by applicants in IDS on 10/28/2004.**

21. With respect to claims 3 and 13, PushArch discloses initiation request (e.g., section 6.3, lines 1-3), but does not expressly disclose an identification of the push proxy gateway for establishing the push session in connection-oriented push. PushOTA, however discloses wherein the initiation request comprises an identification of the push proxy gateway for establishing the push session (contact points as in PushOTA: section 6.1.4.5, the last two lines).

It would have been obvious for a skilled person in the art at the time of invention to combine the teachings of PushArch with the teachings of PushOTA, because PushOTA extends PushArch by providing detailed specifications of the connection-oriented push.

22. With respect to claim 5, PushArch does not disclose providing an error message to the push proxy gateway immediately when said transmitting comprises failing to establish a session between the network and the mobile station using the connection-oriented signaling channel.

PushOTA , however discloses providing an error message to the push proxy gateway immediately when said transmitting comprises failing to establish a session between the network and the mobile station using the connection-oriented signaling channel (e.g., PushOTA: section 6.1.3.3 describes messages in the case of failure).

It would have been obvious for one skilled in the art at the time of invention to combine the teachings of PushArch and the teachings of PushOTA by including the error code in order to enrich the scope of specifications, an objective of PushArch.

23. **Claims 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over PushArch, in view of WapG, as applied to 20 above, and further in view of PushOTA.**

24. With respect to claim 22, PushArch discloses initiation request (e.g., section 6.3, lines 1-3). PushArch, in view of WapG, does not expressly disclose an identification of the push proxy gateway for establishing the push session in connection-oriented push.

PushOTA, however discloses wherein the initiation request comprises an identification of the push proxy gateway for establishing the push session (contact points as in PushOTA: section 6.1.4.5, the last two lines).

It would have been obvious for a skilled person in the art at the time of invention to combine the teachings of PushArch and WapG, with the teachings of PushOTA, because PushOTA extends PushArch by providing detailed specifications of the connection-oriented push.

25. With respect to claim 24, PushArch, in view of WapG, does not disclose receiving an error message at the push proxy gateway immediately when said network fails to establish a session between the network and the mobile station using the connection-oriented signalling channel.

PushOTA, however discloses receiving an error message at the push proxy gateway immediately when said network fails to establish a session between the network and the mobile station using the connection-oriented signalling channel (e.g., PushOTA: section 6.1.3.3 describes messages in the case of failure).

It would have been obvious for one skilled in the art at the time of invention to combine the teachings of PushArch and WapG, with the teachings of PushOTA by including the error code in order to enrich the scope of specifications, an objective of PushArch.

26. **Claims 2 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over PushArch, as applied to claims 1 and 11 above, in view of Turner (*An OSI Solution To III Messaging*. Library Hi Tech, Vol. 8, No. 4, 1990, pp 73-82), and hereinafter Turner.**

27. With respect to claims 2 and 12, PushArch discloses wherein the connection-oriented signaling channel transmits the initiation request (PushArch: section 4, lines 2-3 of the 2nd paragraph; section 5, lines 2-3 of the 4th paragraph).
PushArch does not disclose the use of the connection-oriented signaling channel without using a store-and-forward mechanism.
Turner, however discloses the connection-oriented signaling channel without using a store-and-forward mechanism (Turner: P4, the 4th line and the bottom two lines of the section Network Interconnection).

It is well known in the art that store-and-forward mechanism is not required for direct packet delivery through connection-oriented channels. It would be obvious for the skilled in the art at the time of invention to combine the teachings of PushArch with the teachings of Turner to extend PushArch by providing the feature of connection-oriented service without the store-and-forward mechanism in order to advance the applications and services of WAP over the wireless communication networks.

28. **Claims 9 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over PushArch and WapG, as applied to claims 8 and 17 above, and further in view of Iivari et al. (US Pub. No. 2005/0020234 A1), and hereinafter Iivari.**

29. With respect to claim 9, the claim is rejected for the same reason as claim 8 above. In addition, PushArch discloses establishing a connection with the mobile station using the channel for transmitting (PushArch: section 8.3, lines 3-4 of the 1st paragraph), and requesting the mobile station to establish push session with the push proxy gateway (PushArch: section 8.3, lines 2-3 of the 1st paragraph), and WapG discloses transmitting USSD (e.g., WapG: section 5.2.2, when USSD is used as a bearer as in WapG: section 5.1, the last line), and sending a USSR message (e.g., WapG: section 5.1, lines 4-6 of the 3rd paragraph and the last line, wherein the push proxy gateway is part of the network).

The combined teachings of PushArch and WapG do not disclose to activate a Packet Data Protocol (PDP) context.
In the same field of endeavor, Iivari discloses to activate a Packet Data Protocol (PDP) context (Iivari: [0037], lines 1-4) and establish a push session with the push proxy gateway (Iivari: [0038], lines 1-3).

Packet data protocol context is a network protocol commonly used by inter-networks communication and it would have been obvious one skilled in the art at the time of the invention was made recognizes the advantages of extending PushArch by explicitly

including Packet Data Protocol context, as taught by Iivari, as part of bearer services in order to enrich WAP advanced services, an explicit objective of PushArch.

30. With respect to claim 18, the claim is rejected for the same reason as claim 17 above. In addition, PushArch discloses establishing a connection with the network using the channel for transmitting (PushArch: section 8.3, lines 3-4 of the 1st paragraph), and requesting the mobile station to establish push session with the push proxy gateway (PushArch: section 8.3, lines 2-3 of the 1st paragraph), and WapG discloses transmitting USSD (e.g., WapG: section 5.2.2, when USSD is used as a bearer (WapG: section 5.1, the last line), and sending a USSR message (e.g., WapG: section 5.1, lines 4-6 of the 3rd paragraph and the last line, wherein the push proxy gateway is part of the network).

The combined teachings of PushArch and WapG do not disclose to activate a Packet Data Protocol (PDP) context.
In the same field of endeavor, Iivari discloses to activate a Packet Data Protocol (PDP) context (Iivari: [0037], lines 1-4) and establish a push session with the push proxy gateway (Iivari: [0038], lines 1-3).

Packet data protocol context is a network protocol commonly used by inter-networks communication and it would have been obvious one skilled in the art at the time of the invention was made recognizes the advantages of extending PushArch by explicitly including Packet Data Protocol context, as taught by Iivari, as part of bearer services in order to enrich WAP advanced services, an explicit objective of PushArch.

31. **Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over PushArch and WapG, as applied to claim 20 above, in view of Turner.**

32. With respect to claim 21, PushArch discloses wherein the connection-oriented signaling channel transmits the initiation request (PushArch: section 4, lines 2-3 of the 2nd paragraph; section 5, lines 2-3 of the 4th paragraph).

The combined teachings of PushArch and WapG do not disclose the use of the connection-oriented signaling channel without using a store-and-forward mechanism. Turner, however discloses the use of the connection-oriented signaling channel without using a store-and-forward mechanism (Turner: P4, the 4th line and the bottom two lines of the section Network Interconnection).

It is well in the art at that there is no requirement for store-and-forward mechanism on direct packet delivery through connection-oriented channels. It would be obvious for the skilled in the art at the time of invention to combine the teachings of PushArch with the teachings of Iivari to extend PushArch, in view of WapG, by providing the feature of connection-oriented service without the store-and-forward mechanism in order to advance the applications and services of WAP over the wireless communication networks.

33. **Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over PushArch and WapG, as applied to claim 27, in view of Turner, and further in view of Iivari.**

34. With respect to claim 28, the claim is rejected for the same reason as claim 27 above. In addition, WapG discloses sending a USSR message requesting the mobile station to establish a push session with the push proxy gateway (WapG: section 5.1, lines 4-9 of the 3rd paragraph and the last line indicate that the push proxy gateway is part of the network).

The combined teachings of PushArch and WapG do not disclose to activate a Packet Data Protocol (PDP) context.
In the same field of endeavor, Iivari discloses to activate a Packet Data Protocol (PDP) context (Iivari: [0037], lines 1-4) and establish a push session with the push proxy gateway (Iivari: [0038], lines 1-3).

Packet data protocol context is a network protocol commonly used by inter-networks communication and it would have been obvious for one skilled in the art at the time of the invention was made to recognize the advantages of extending PushArch, in view of WapG, by explicitly including Packet Data Protocol context, as taught by Iivari, as part of bearer services in order to enrich WAP advanced services, an explicit objective of PushArch.

35. **Claims 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over PushArch, in view of Zhigang (US Pub. No. 20050014489), and hereinafter Zhigang.**

36. With respect to claim 29, PushArch discloses a network node of a wireless communication network for initiating a Wireless Access Protocol (WAP) push session to push information from a push proxy gateway to a mobile station via the wireless communication network (PushArch: section 1, the 2nd paragraph describes a mobile device which can be a mobile station with definitions of push proxy gateway and push session in section 3.2; section 6.3, lines 1-3 describes initiation), and the network node is to: transmit an initiation request to the mobile station using a connection-oriented signalling channel between the network and the mobile station (PushArch: section 8.3, lines 3 of the 1st paragraph describes communication between the mobile station and network or PPG with a connection-oriented service, e.g., in line 1 of the 2nd paragraph), said mobile station establishing a push session in response to the initiation request towards the push proxy gateway to permit the push proxy gateway to push information to the mobile station (e.g., PushArch: section 8.3, the 2nd paragraph describes the push session with information sent to the mobile station as in section 6, line 2 of the 1st paragraph).

PushArch does not disclose the network node comprising: a communications system for transmitting and receiving via the wireless network; a processor coupled to the communication system for processing received messages and messages for sending; and a memory coupled to the processor for storing instructions to configure the processor.

In the same field of endeavor, Zhigang discloses the network node comprising: a communications system for transmitting and receiving via the wireless network (Zhigang: [0077], lines 8-14); a processor coupled to the communication system for processing received messages and messages for sending (Zhigang: [0077], lines 3-11); and a memory coupled to the processor for storing instructions to configure the processor (Zhigang: [0077], lines 5-8).

Given the teachings of Zhigang, one skilled in the art at the time of invention would have readily recognize the advantages of extending PushArch by employing the realization of a network node (e.g., WAP gateway), as in Zhigang, in order to enrich the development of the WAP push architecture and functionality to operators and manufacturers.

37. With respect to claim 30, PushArch discloses a mobile station for initiating a Wireless Access Protocol (WAP) push session to receive push information from a push proxy gateway via a wireless communication network (PushArch: section 6.3, lines 1-2 describes initiation; section 8.3, lines 2-3 of the 2nd paragraph), and the mobile station is to receive an initiation request at the mobile station using a connection-oriented

signalling channel between the network and the mobile station (PushArch: section 8.3, lines 3 of the 1st paragraph describes communication between the mobile station and network or PPG with a connection-oriented service, e.g., in line 1 of the 2nd paragraph); and establish a push session in response to the initiation request towards the push proxy gateway to permit the push proxy gateway to push information to the mobile station (e.g., PushArch: section 8.3, the 2nd paragraph describes the push session with information sent to the mobile station as in section 6, line 2 of the 1st paragraph).

PushArch does not disclose the mobile station comprising: a communications system for transmitting and receiving via the wireless network; a processor coupled to the communication system for processing received messages and messages for sending; and a memory coupled to the processor for storing instructions to configure the processor.

In the same field of endeavor, Zhigang discloses the mobile station comprising: a communications system for transmitting and receiving via the wireless network (Zhigang: [0072], lines 8-11); a processor coupled to the communication system for processing received messages and messages for sending (Zhigang: [0069], lines 6-9); and a memory coupled to the processor for storing instructions to configure the processor (Zhigang: [0071], lines 2-5)

Given the teachings of Zhigang, one skilled in the art at the time of invention would have readily recognize the advantages of extending PushArch by employing the realization of a mobile station, as in Zhigang, in order to enrich the development of the WAP push architecture and functionality to operators and manufacturers.

38. **Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over PushArch, in view of WapG, and further in view of Zhigang.**

39. With respect to claim 31, PushArch discloses a push proxy gateway of a wireless communication network for initiating a Wireless Access Protocol (WAP) push session to push information from a push proxy gateway to a mobile station via the wireless communication network (PushArch: section 1, the 2nd paragraph describes a mobile device which can be a mobile station with definitions of push proxy gateway and push session in section 3.2; section 6.3, lines 1-3 describes initiation), and the push proxy gateway is to: transmit an initiation request using a connection-oriented signaling channel between the network and the mobile station (e.g., PushArch: section 8.3, lines 3 of the 1st paragraph describes communication between the mobile station and the network or PPG with a connection-oriented service, e.g., in line 1 of the 2nd paragraph), said mobile station establishing a push session in response to the initiation request towards the push proxy gateway to permit the push proxy gateway to push information to the mobile station (PushArch: section 8.3, the 2nd paragraph describes the push session with information sent to the mobile station section 6, line 2 of the 1st paragraph).

PushArch does not disclose to a network node of the wireless communication network for delivery to the mobile station.
WapG, however discloses to a network node of the wireless communication network for delivery to the mobile station (WapG: section 7.2 line 1 and Figure 1 shows the architecture and section 7.1 describes the delivery protocol).

Nonetheless, GSSD is a well-known bearer service that supports the WAP traffic. It would have been obvious for one skilled in the art at the time of invention to extend PushArch by explicitly including bearer services, such as USSD, in order to provide broad functionalities and services of WAP push architecture.

The combined teachings of PushArch and WapG do not disclose
the network node comprising: a communications system for transmitting and receiving via the wireless network; a processor coupled to the communication system for processing received messages and messages for sending; and a memory coupled to the processor for storing instructions to configure the processor.

In the same field of endeavor, Zhigang discloses the network node comprising:
a communications system for transmitting and receiving via the wireless network (Zhigang: [0077], lines 8-14); a processor coupled to the communication system for processing received messages and messages for sending (Zhigang: [0077], lines 3-11);

and a memory coupled to the processor for storing instructions to configure the processor (Zhigang: [0077], lines 5-8).

Given the teachings of Zhigang, one skilled in the art at the time of invention would have readily recognize the advantages of extending PushArch by employing the realization of a network node (e.g., WAP gateway), as in Zhigang, in order to enrich the development of the WAP push architecture and functionality to operators and manufacturers.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LiWu Chang whose telephone number is 571-270-3809. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nabil El-Hady can be reached on 571-272-3963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LC November 16, 2007

N. El-Hady

NABIL M. EL-HADY
SUPERVISORY PATENT EXAMINER